

ABSTRACT OF THE DISCLOSURE

A valve timing control system for an internal combustion engine is provided, which includes: a crank angle sensor detecting a crank angle corresponding to an internal combustion engine crank shaft rotational angle; an actuator relatively modifying phases of a cam angle with the crank angle; a cam angle sensor detecting the cam angle modified by the actuator; an oil control valve driving the actuator; a target value detection unit calculating a target value according to the internal combustion engine operation state; a cam angle control unit controlling the detected cam angle to coincide with the calculated target value; a learning unit learning a control signal to the oil control valve when the cam angle substantially coincides with the target value; and a failure detection unit detecting failure of the actuator. The failure detection unit modifies a failure detection condition according to whether learning is performed in the learning unit.